## DEPARTMENT OF THE ARMY



U.S. Army Corps of Engineers WASHINGTON, D.C. 20314-1000

REPLY TO ATTENTION OF:

02 MAY 2000

CECW-PE (10-1-7a)

SUBJECT: New York and New Jersey Harbor Navigation Study

## THE SECRETARY OF THE ARMY

- 1. I submit for transmission to Congress my report on the New York and New Jersey Harbor Navigation Study. It is accompanied by the report of the district and division engineers. These reports are in response to Section 435 of the Water Resources Development Act (WRDA) of 1996. This section directed the Secretary to conduct a comprehensive study of navigation needs at the Port of New York and New Jersey (including the South Brooklyn Marine and Red Hook Container Terminals, Staten Island, and adjacent areas) to address improvements, including deepening of existing channels to depths of -50 feet or greater. This feasibility study was conducted in cooperation with the non-Federal sponsors (the states of New York and New Jersey and The Port Authority of New York and New Jersey). Pre-construction engineering and design activities for this proposed project will be continued under the authority provided by the section cited above.
- 2. The reporting officers recommend a plan to modify the existing projects for New York and New Jersey Harbor anchorages and channels. The plan consists of the following improvements:
- a. Deepen the Ambrose Channel for its entire length to a depth of -53 feet mean low water (MLW);
- b. Deepen the Anchorage Channel to a depth of -50 feet MLW (52 feet in rock or otherwise hard material) from the Narrows to 1000 feet past its juncture with Port Jersey Channel;
- c. Deepen the Port Jersey Channel to a depth of -50 feet MLW (52 feet in rock or otherwise hard material) from its juncture with Anchorage Channel to the Global Terminal and Military Ocean Terminal at Bayonne facilities;
- d. Deepen the Kill Van Kull Channel to a depth of -50 feet MLW (52 feet in rock or otherwise hard material) from its juncture with Anchorage Channel to the Arthur Kill Channel;
- e. Deepen the Newark Bay Channel to a depth of -50 feet MLW (52 feet in rock or otherwise hard material) from its juncture with the Kill Van Kull Channel to the juncture with the Elizabeth Channel, including deepening the existing Elizabeth, South Elizabeth, and Elizabeth Pierhead Channels to -50 feet MLW (52 feet in rock or otherwise hard material);

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f. Deepen the Arthur Kill Channel to a depth of -50 feet MLW (52 feet in rock or otherwise hard material) from its juncture with the Kill Van Kull Channel and Newark Bay to the southernmost berth at the Howland Hook Marine Terminal; and

g. Deepen the Bay Ridge Channel to a depth of -50 feet MLW (52 feet in rock or otherwise hard material) from its juncture with Anchorage Channel to the South Brooklyn Marine Terminal, subject to commitment to rehabilitate the South Brooklyn Marine Terminal and transportation infrastructure needed to realize project benefits.

The reporting officers recommend that the proposed project and other authorized on-going New York and New Jersey Harbor navigation channel deepening projects cited under paragraphs 2c, 2d, 2e and 2f above be combined, as appropriate, to facilitate more efficient and timely project design and construction implementation. This action would be subject to appropriation of construction funds for the recommended project.

- 3. Based on October 1999 prices, the total first cost of the project is estimated at \$1,781,235,000, with the Federal cost of about \$738,631,000, and a non-Federal cost of about \$1,042,604,000. This first cost includes about \$1,636,947,000 for cost shared general navigation features (GNF); \$21,649,000 for non-federally provided lands, easements, rights-of-way, and relocations (LERR); \$95,950,000 in non-Federal costs associated with the dredging of berthing areas and for construction and development of other local service facilities; and about \$140,000 for the Federal aids to navigation. The owner costs for utility relocations and facility removals is \$19,694,000 and \$6,855,000, respectively. The GNF costs include dredging of the channels, construction of inner harbor sub-channel dredged material placement cells and upland placement of dredged material through payment of tipping fees, and mitigation. Mitigation for impacts to 6.26 acres of littoral zone habitat would occur through creation and restoration of 7.6 acres of littoral zone habitat in New York and restoration of 11 acres in New Jersey. The first cost of mitigating unavoidable environmental impacts is estimated to be \$13,000,000 and is included in the GNF estimates noted above. The non-Federal portion of project costs includes a repayment of 10 percent of the construction costs of the GNF over a period not to exceed 30 years, less allowable credits for the value of LERR. The incremental annual cost for operation and maintenance of the recommended plan is estimated at \$1,060,000, with \$816,000 a Federal responsibility and \$244,000 a non-Federal responsibility.
- 4. Average annual benefits and costs, based on October 1999 price levels, a discount rate of 6.625 percent, and a 50-year period of economic analysis, are estimated at \$243,200,000 and \$156,884,000, respectively, with a resulting net benefit \$86,316,000. The overall benefit-to-cost ratio is 1.6 to 1. The recommended plan is the national economic development plan. The recommended plan would reduce waterborne transportation costs by allowing the current and future fleets to be loaded more efficiently. Also, transportation costs would be lowered by reducing the number of required vessel trips and congestion-related delays.

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- 5. Dredged material placement for this project is provided in accordance with the Dredged Material Management Plan for the Port of New York and New Jersey. Initial excavation of the channels is estimated to require disposal of 38.3 million cubic yards (mcy) of material. In compliance with current Federal regulations for ocean placement, materials meeting the standard for ocean placement would be placed at the Historic Area Remediation Site (HARS). This is estimated to be approximately 24.3 mcy of material. Rock material (5.8 mcy) would be placed at the Sandy Hook and Atlantic Beach reef sites. For material deemed unsuitable for placement at the HARS (8.2 mcy), the present intent is to use the material by placement at a variety of upland sites, at decontamination facilities generating marketable products, or at inner harbor sub-channel placement cells. No LERR costs would be associated with the placement of dredged material, and any upland placement would be accepted for a "tipping fee," thereby eliminating the need for real estate acquisition.
- 6. I generally concur in the findings, conclusions, and recommendations of the reporting officers. The plan developed is technically sound, economically justified, and environmentally and socially acceptable. The plan conforms with essential elements of the U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies and complies with other administration and legislative policies and guidelines. Also, the views of interested parties, including Federal, State, and local agencies, have been considered.
- 7. Accordingly, I recommend implementation of the authorized project in accordance with the reporting officers' plan with such modifications as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing, financing, and other applicable requirements of WRDA 1986, as amended by Section 201 of WRDA 1996. Also, this recommendation is subject to the non-Federal sponsor agreeing to comply with all applicable Federal laws and policies, including the following requirements:
- a. Enter into an agreement, which provides, prior to execution of the project cooperation agreement, 25 percent of design costs;
- b. Provide, during construction, any additional funds needed to cover the non-Federal share of design costs;
- c. Provide, during the period of construction, a cash contribution equal to the following percentages of the total cost of construction of the general navigation features (which include the construction or improvement of land-based and aquatic dredged material disposal facilities that are necessary for the disposal of dredged material required for project construction, operation, or maintenance and for which a contract for the Federal facility's construction or improvement was not awarded on or before October 12, 1996); and a dredged material disposal facility designed, constructed, managed, or operated by a public or private entity, if consistent with economic and environmental considerations, the facility is the least-cost alternative:

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- (1) 25 percent of the costs attributable to dredging to a depth in excess of -20 feet below MLW but not in excess of -45 feet below MLW;
- (2) 50 percent of the costs attributable to dredging to a depth in excess of -45 feet below MLW;
- d. In the case of project features greater than -45 feet below MLW in depth, provide 50 percent of the excess cost of operation and maintenance of the project over that cost which the Secretary of the Army determines would be incurred for operation and maintenance if the project had a depth of -45 feet below MLW;
- e. Pay with interest, over a period not to exceed 30 years following completion of the period of construction of the project, up to an additional 10 percent of the total cost of construction of general navigation features depending upon the amount of credit given for the value of lands, easements, rights-of-way, and relocations provided by the non-Federal sponsor for the general navigation features. If the amount of credit exceeds 10 percent of the total cost of construction of the general navigation features, the non-Federal sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of lands, easements, rights-of-way, and relocations in excess of 10 percent of the total cost of construction of the general navigation features;
- f. Provide all lands, easements, and rights-of-way, and perform or ensure the performance of all relocations determined by the Federal Government to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features (including all lands, easements, and rights-of-way, and relocations necessary for dredged material disposal facilities);
- g. Provide, operate, maintain, repair, replace, and rehabilitate, at its own expense, the local service facilities in a manner compatible with the project authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government;
- h. Accomplish all removals determined necessary by the Federal Government other than those removals specifically assigned to the Federal Government;
- i. Grant the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the general navigation features for the purpose of inspection, and, if necessary, for the purpose of operating, maintaining, repairing, replacing, and rehabilitating the general navigation features;

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- j. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, replacement, and rehabilitation of the project, any betterments, and the local service facilities, except for damages due to the fault or negligence of the United States or its contractors;
- k. Keep, and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, and other evidence is required, to the extent and in such detail as will properly reflect total cost of construction of the general navigation features, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 CFR, Section 33.20;
- l. Perform, or cause to be performed, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601-9675, that may exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be necessary for the construction, operation, maintenance, repair, replacement, or rehabilitation of the general navigation features. However, for lands that the Government determines to be subject to the navigation servitude, only the Government shall perform such investigation unless the Federal Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;
- m. Assume complete financial responsibility, as between the Federal Government and the non-Federal sponsor, for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features;
- n. To the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;
- o. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987, and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way required for construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features, and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;

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- p. Comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army;"
- q. Provide a cash contribution equal to the non-Federal cost sharing percentage of the project total historic preservation mitigation and data recovery costs that are in excess of the total amount authorized to be appropriated for the project;
- r. Do not use Federal funds to meet the non-Federal sponsor's share of total project costs unless the Federal granting agency verifies in writing that the expenditure of such funds is authorized; and
- s. Rehabilitate the South Brooklyn Marine Terminal and related transportation infrastructure, which are necessary to realize project benefits from the Bay Ridge Channel.
- 8. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program nor the perspective of higher review levels within the executive branch. Consequently, the recommendation may be modified before it is transmitted to Congress as a proposal for authorization and implementation funding. However, prior to transmittal to Congress, the Port Authority of New York and New Jersey, the non-Federal sponsor; the State of New York and the State of New Jersey; interested Federal agencies; and other parties will be advised of any modifications and will be afforded an opportunity to comment further.

Lieutenant General, U.S. Army

Chief of Engineers